

predominantly the result of non-highway sources (i.e. industrial, commercial, and agricultural). Air quality standards for particulate matter and SO₂ are being met in Jones and Onslow Counties.

3.3.2.4 Lead

Automobiles without catalytic converters emit lead (Pb) as a result of burning gasoline containing tetraethyl lead. However, the CAA of 1990 made the sale, supply, or transport of leaded gasoline or lead additives unlawful after December 31, 1995. Air quality standards for Pb are being met in Jones and Onslow Counties.

3.3.2.5 Mobile Source Air Toxics (MSATs)

In addition to the six criteria air pollutants for which there are NAAQS, the EPA also regulates air toxics. Most air toxics originate from man-made sources, including on-road sources, non-road mobile sources (e.g. airplanes), area sources (e.g. dry cleaners), and stationary sources (e.g. factories). Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. The six main MSATs are benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. Exposure to air toxics in sufficient concentrations and sufficient durations may increase the risk of cancer and respiratory health concerns, although exposure relationships have not yet been determined by the USEPA. Currently, the USEPA has not proposed to establish ambient standards for these pollutants so there are no non-attainment areas for air toxics.

Chapter 4 of this SFEIS includes a basic, qualitative analysis of likely MSAT emission impacts for the US 17 improvement project. Available technical tools are not sophisticated enough to enable prediction of project-specific health impacts due to emission changes associated with specific alternatives.

3.3.3 Farmlands

The Farmland Protection Act of 1981 (7 CFR Part 658) requires NCDOT to consider the impact of their activities on prime, unique, and statewide and locally-important farmland soils, as defined by the US Department of Agriculture Natural Resource Conservation Service (NCRS) (Public Law 97-98, Subtitle 1, Section 1540). Soils in the study area considered to be prime or of statewide importance are listed in **Table 3-7** and mapped in **Figure 3-8**.